

**Multisystemic resources matter for resilience to depression: Learning from a sample of young South African adults**

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**Abstract**

This article interrogates the continuing emphasis on personal sources of resilience; it also amends the inattention to the protective factors and processes (PFPs) that support the mental health resilience of African emerging adults. To that end, we report a study that explored which PFPs distinguished risk-exposed South African 18-to-29-year-olds with negligible depression symptoms from those who reported moderate to severe symptoms. Using an arts-based approach, young people volunteered the PFPs they had personally experienced as resilience-enabling. An inductive thematic analysis of visual and narrative data, generated by young people self-reporting high exposure to family and community adversity ( $n = 233$ ; mean age: 24.63, SD: 2.43), revealed patterns in the PFPs relative to the severity of self-reported depression symptoms. Specifically, young people reporting negligible depression symptoms reported a range of PFPs associated with psychological, social, and ecological systems. In contrast, the PFPs identified by those reporting more serious depression symptoms were mostly restricted to personal strengths and informal relational supports. In the interests of youth mental health, the findings direct society's attention to the criticality of facilitating young people's access to a composite of resources rooted in personal, social, and ecological systems.

**Keywords:** African; depression; draw-&-write methods; mixed methods; multisystemic resilience; young adult

Depression is the leading cause of the global health-related burden (Santomauro et al., 2021). Adolescents and emerging adults are not exempt; worldwide, almost one in three is at risk for depression (Shorey et al., 2022). Meta-analyses show that youth risk for depression rose during the COVID-19 pandemic (Racine et al., 2021; Wang et al., 2021), with this pattern also appearing in South Africa (Haag et al., 2022; Mudiriza & De Lannoy, 2020). Risk-exposed youth in low- and middle-income countries (LMIC), like South Africa, are especially vulnerable to depression but seldom have access to mental health services (Lu et al., 2018; Stelmach et al., 2022).

In the absence of mental health/psychological services, understanding which everyday factors and processes might protect youth against depression is key to effective prevention/early intervention. Given the association between risk exposure and depression, such knowledge is especially important when risk exposure is high (e.g., in the presence of socioeconomic disadvantage, family adversity, or community-related threats [Lund et al., 2018; Mungai & Bayat, 2019]). Protective factors and processes (PFPs) support positive outcomes (e.g., mental health) at high levels of risk exposure (Sameroff, 2000). Drawing on mixed methods data, this article examines the everyday PFPs that a sample of risk-exposed South African (SA) youth (aged 18-29) experienced as resilience-enabling during the COVID-19 lockdown. Specifically, the article compares the PFPs described by youth who self-reported during a survey high levels of risk exposure and minimal or mild symptoms of depression with those who self-reported high levels of risk exposure and moderate or severe symptoms of depression.

Worryingly, there is little robust evidence of the PFPs that prevent or ameliorate depression. Arango and colleagues' (2021) atlas of risk and protective factors for mental disorders, which meta-synthesized 14 umbrella reviews, identified a limited number of

protective factors. Of these, only one (i.e., high physical activity) had a credible evidence base. Similarly, Solmi and colleagues' (2021) umbrella review of meta-analyses that documented risk and protective factors for mental disorders with onset in childhood/adolescence (like depression) did not report a single PFP. Less rigorous reviews of the mental health literature (e.g., Fusar-Poli et al., 2020) report PFPs that are mostly personal (e.g., mental health literacy, self-perceptions, cognitive skills, or self-management strategies). Reviews and meta-analyses that are specific to the factors that could protect adolescents against depression (e.g., Cairns et al., 2014; Tang et al., 2020) also emphasise personal factors (e.g., sleep routine, diet, psychological resilience). Similarly, systematic reviews of sub-Saharan studies of child and youth resilience have emphasized the importance of personal protective resources to positive outcomes, including mental health (Theron, 2020; Van Breda & Theron, 2018).

In contrast, the recent science of multisystemic resilience is calling for social, institutional, and ecological PFPs to receive the same (if not more) attention as that afforded personal (i.e., biological and psychological) PFPs, and to consider how these PFPs co-facilitate mental health outcomes (Masten et al., 2021; Ungar & Theron, 2020). Studies that examined the mental health of young people in South Africa during the COVID-19 pandemic, pointed to some of these social PFPs. For instance, Haag and colleagues (2022) surveyed 233 youth (mean age: 19.6) living in resource constrained communities in South Africa. While COVID-related challenges were predictive of increased symptoms of anxiety and depression, they found that positive experiences (e.g., enjoying having time to spend with family or on hobbies) ameliorated these symptoms. Another survey, involving 5693 youth (18-35 years) in seven provinces of South Africa, found that employment or caring for family were associated with lower levels of depression despite exposure to COVID-related challenges (Mudiriza & De Lannoy, 2020).

Additionally, it is necessary to investigate which PFPs might be differentially impactful (i.e., have pronounced protective effects) for young people in specific situational and cultural contexts at higher levels of risk (Ungar, 2019). Typically, little is known about differentially impactful PFPs associated with the positive development or mental health of adolescents in/from majority world contexts, especially African adolescents (Blum & Boyden, 2018; Chukwuere et al., 2021). Attention to the PFPs that have differential value for the mental health of African adolescents is a particularly pressing research agenda, given predictions that this population will be the world's largest by 2050 and concerns that the associated "youth dividend" will not be realised unless this population's resilience is nurtured (Theron, 2020).

### **Methods**

The question directing this paper was, "What similarities and differences are there in the PFPs reported by youth who live in disadvantaged communities, self-identify as coping well, and self-report (i) high levels of risk exposure and minimal or mild symptoms of depression versus (ii) high levels of risk exposure and moderate or severe symptoms of depression?" This question prompted a mixed methods approach. Following Hanson and colleagues (2005), we adopted an interpretivist stance (i.e., embraced the understanding that 'truth' is variable/multiple rather than universal/singular, and relative to an individual's experience and their interpretation of that experience) and collected quantitative and qualitative data concurrently. The quantitative data were relevant to determining young people's perceptions of the extent of personal risk exposure and depression symptoms. The qualitative data were key to learning about their lived experience of PFPs. This paper foregrounds the qualitative data.

### **Ethical procedures**

Most data collection occurred from June – December 2021. To curb the spread of COVID-19, South Africa continued to mandate lockdown restrictions and public health measures throughout 2021. From June to August 2021, South Africa was subject to stricter (i.e., levels 3-4) lockdown restrictions (e.g., no social gatherings; curfews between 21.00 and 04.00). Thereafter, lockdown levels were adjusted to more lenient levels (i.e., level 2, September; level 1, October onwards) and restrictions reduced (e.g., small social gatherings permitted, provided physical distance was maintained and masks worn). During levels 3-4, in-person research was not permissible and so data collection was virtual/telephonic.

The Faculty of Health Sciences Research Ethics Committee and Faculty of Education Ethics Committee, University of Pretoria (clearance number: UP17/05/01) provided ethical clearance. All participants consented prior to participation. Because the study was completed telephonically/virtually, written or verbal consent procedures were permitted. If participants could not provide written consent (e.g., they had no access to a device that facilitated completion of the consent form in writing), trained research assistants (RAs) read all items in the consent form to them and audio-recorded their responses. The recordings were uploaded to a password-protected repository.

Participants received 50MB of data to complete the measures and qualitative work. They were also modestly compensated for their participation (they received a ZAR100 [approximately \$10] supermarket voucher).

### **Study Participants**

To be eligible for inclusion, participants needed to be an emerging adult (i.e., 18-29 years; Arnett, 2000); be English literate; reside in a disadvantaged (e.g., high density, poor infrastructure, low socioeconomic status) community in Gauteng province, South Africa; have personal experience of COVID-19-related stress (e.g., disrupted education/future plans;

financial strain; separation from/loss of someone significant); and identify as someone coping despite the stresses of COVID-19 and disadvantaged community residence (e.g., engaged in further education/training; employed/actively seeking employment; contributing meaningfully to household [e.g., child-minding]). These criteria, which fit the preconditions required for any study of resilience (i.e., exposure to risk; positive outcome [e.g., adaptive coping/functional behaviour]; Ungar, 2019), were advertised via social media, strategically placed flyers, and gatekeepers (e.g., staff at youth-focused non-government organisations). Youth who self-identified with the criteria sent a text message to a dedicated study number; RAs (psychology/social work graduates) responded telephonically. They explained the study's purpose and clarified that participants fit the eligibility criteria aligned with that purpose (i.e., RAs were trained to respectfully verify exposure to risk [residence in resource-constrained community; experience of COVID-19-related stress] and resilience [functional behaviour, e.g., engagement in education]). Thereafter, RAs explained what participants would be expected to do, anticipated minor risks (e.g., survey questions about risk could trigger negative memories/emotion), and anticipated duration of participation. If participants were still interested in participating, RAs emailed them detailed information letters and consent forms, and agreed on a mutually convenient time to contact them telephonically/virtually to complete the consents and schedule the survey and qualitative activity.

Many participants recommended the study to peers (i.e., we used snowball sampling as an additional recruitment strategy). This was helpful, given lockdown-related challenges to participant recruitment. As with self-nominated youth, RAs screened the eligibility of snowball-sampled youth. In two instances, potential participants resided in a high-income community; they were thanked for their interest, reminded of the disadvantaged community eligibility criterion, and their participation respectfully declined.

A total of 294 emerging adults (aged 18 to 29) participated. Of these, 293 completed the quantitative and qualitative work (see Table 1). Their average age was 24.37 (SD: 2.53). Young women (n = 203) dominated the sample. As explained later in the quantitative analysis sub-section, most young people (n = 233) self-reported high levels of risk exposure.

[INSERT TABLE 1 HERE]

## Data Collection

### *Quantitative Measures*

All quantitative measures were completed electronically (via a participant-specific link to Opinio).

**Family adversity.** We used a 10-item adaptation of the Family Adversity Scale (Labella et al., 2017). Participants reported whether they had experienced a family adversity at any time in the past (0 = no, 1 = yes), including foster care; the death of caregiver or sibling; severe parental/caregiver conflict or intimate partner violence; parental divorce; and caregiver substance use problems, serious physical/mental health problems, or incarceration. The response scores were summed. Reliability was adequate ( $\Omega = 0.609$ ).

**Community-related stress.** We surveyed participant perception of their community using the 10-item Perception of Neighbourhood Scale (Ruchkin et al., 2004). Participant perceptions were measured on a 4-point scale (scored 0-3) ranging from always false to always true. Items pulsed related to social cohesion, sense of safety, ecological degradation, and illegal activity (e.g., drug sales). The response scores were summed and showed acceptable reliability ( $\Omega = 0.767$ ).

We also used the 7-item adaptation of the Victimization by Community subscale of Exposure to Violence scale (Ruchkin et al., 2004). Participant experience of being victimised

in the past year was measured on a 5-point scale (scored 0-4) ranging from never to 10+ times. Items included experiences of being chased, threatened, and actual physical harm (e.g., being beaten or wounded). The response scores were summed. Reliability was good ( $\Omega = 0.801$ ).

**Depression.** Using the Beck Depression Inventory-II (BDI-II; Beck et al., 1996), participants self-reported symptoms of depression in the preceding two weeks. The BDI-II comprises 21 items; each comprise four statements of increasing symptom severity (scored 0-3). For instance: “0 = I do not feel sad; 1 = I feel sad much of the time, 2 = I am sad all the time; 3 = I am so sad or unhappy that I can’t stand it”. The scores are summed. Scores of 0-13 denote minimal symptoms; 14-19, mild symptoms; 20-28, moderate symptoms; and 29-63, severe symptoms. Reliability was good ( $\Omega = 0.935$ ).

### **Qualitative Methods**

**Draw-&-Write.** Following Mitchell et al. (2011), we invited participants to produce a free-hand drawing of any resource that they had experienced as resilience-enabling and to explain the meaning of their drawing in writing. A benefit of this draw-&-write method was its broad invitation to draw any resource (i.e., the detail of participants’ drawings and explanations could not be shaped by researcher assumptions and related questions). In explaining the meaning of their drawing, participants facilitated the “marry[ing] up” (Angell et al., 2015, p. 25) of the visual and narrative content, thereby limiting researcher bias when interpreting the data.

In the isolated instances where participants were uncertain that they could draw well enough, RAs reminded them that they could decline the qualitative activity but that if they did continue, our interest was in the content (not quality) of the drawing. Because lockdown conditions prohibited us from meeting with participants, we asked them to make the drawing



on any paper they had available using any medium they had on hand. Participants scanned or used smartphones to photograph their drawing and explanation and shared the scanned/photographed documents with us via email, short message service (SMS), or WhatsApp.

## **Data Analysis**

### *Quantitative Analyses*

The total scores for the family and community risk measures were summed, and the mean calculated. Participants who scored at or below the mean were categorised as lower risk. Participants who scored above the mean were categorised as higher risk. Most of the sample ( $n = 233$ ; mean age: 24.63, SD: 2.43) reported higher levels of risk. A minority ( $n = 61$ ; mean age: 23.57, SD: 2.76) reported lower levels of risk. In each risk category, and following the BDI-II scoring instructions (Beck et al., 1996), participants were sub-categorised into those reporting lower (i.e., minimal/mild) or higher (i.e., moderate/severe) levels of depression symptoms (See Table 2).

[INSERT TABLE 2 HERE]

### *Qualitative Analyses*

For the purposes of this paper, we only considered the qualitative data generated by participants in the higher risk category (i.e., 233 drawings and explanations). Using ATLAS.ti software, and a reflexive thematic analysis approach (Braun & Clarke, 2022), the first author analysed 10% of the data. This involved labelling any part of the visual/narrative data that spoke to any PFP. The label typically identified the PFP and annotated how that PFP supported resilience. For instance, a drawing of people playing soccer was labelled “playing sport” and the related explanation about sport offering an opportunity to forget about

hardship was labelled “playing sport takes the focus off hardship”. Next, the first author grouped similar codes and assigned thematic labels to them (e.g., open codes relating to sport providing distraction, relief, or opportunities to glean advice from peers were grouped and labelled “sport offers opportunities to destress”).

The first author workshopped two research interns (completing a master's degree in research psychology) to familiarise themselves with and apply the thematic labels. The interns then used the labels to code the remaining data. When this was done, the interns compared their coding and held consensus discussions in the isolated instances where they had assigned different codes. Inter-rater reliability was substantial ( $k = .74$ ; 97.33 % agreement). They shared the coded data with the first author. She considered the coding critically, and using the lens of multisystemic resilience (Masten et al., 2021; Ungar & Theron, 2020), she grouped the thematic codes into 3 code groups with sub-themes: Personal resources (i.e., constructive cognition, enabling agency, self-soothing behaviours); relational resources (i.e., supportive family, friends, others); and ecological resources (opportunities for constructive downtime; institutional/service supports; enabling opportunities for employment/education; enabling physical spaces; see supplemental material for codebook).

### ***Mixing the Results and Findings***

Once the qualitative data were analysed, we (authors) focused our attention on the drawings and explanations generated by participants reporting lower (i.e., minimal/mild) levels of depression symptoms ( $n = 212$ ). We did the same with those that were specific to participants reporting higher (i.e., moderate/severe) levels of depression symptoms ( $n = 21$ ), identifying which code groups and sub-themes were common across the lower/higher depression symptom groups. We then considered whether any code groups were unique to either the lower or higher depression symptom group, or if they manifested differently in

each sub-sample. Table 3 shows the frequency of coded themes for participants from the various depression groupings.

## Findings

The findings can be grouped into two broad categories. The first speaks to commonalities in how young people accounted for resilience, regardless of the level of depression symptoms reported. In this regard, personal resources were ubiquitously prominent, but there was limited mention of institutional or ecological resources. While these two patterns were common across the lower/higher depression groups, there was some variation in how young people recounted these resources (e.g., while self-soothing activities were common, youth reporting lower levels of depression, reported a wider range of self-soothing activities). The second category speaks to what was distinct about the resilience accounts of young people reporting lower (i.e., minimal/mild) levels of depression symptoms despite exposure to the same high levels of risk factors common to the entire sample. Unlike participants reporting higher levels of depression, the lower depression group were more likely to report active or creative downtime and a range of relational supports.

### Commonality 1: Personal resources are ubiquitous

Regardless of whether young people reported lower (i.e., minimal/mild) or higher (i.e., moderate/severe) levels of depression symptoms, they typically attributed their resilience to personal strengths. These included the capacity to make constructive meaning, take enabling action, or self-soothe. Most prominent among these was constructive meaning-making. Typically, this meaning-making was hopeful and intertwined with faith-based beliefs and/or inspired by (gospel) music. For instance, Participant 34 (a 25-year-old woman who reported severe symptoms of depression) explained that her drawing (see Figure 1) denoted her capacity for hope and its rootedness in her religious beliefs. She wrote: "... beautiful

things can exist even during a storm. When everything is falling apart, there is always a reason to hold on ... the cross at the top represents faith. The belief that tomorrow things will be better". Similarly, Participant 136 (a 25-year-old woman who reported moderate symptoms of depression) drew music notes and explained, "Music revives me ... assures me I am not going through it alone; it helps me move on". Hopeful meaning-making was also evident in how Participant 185 (a 21-year-old woman who reported mild symptoms of depression) explained her drawing of someone sitting in the sunshine: "I always remind myself that one day it [lockdown] will change ... I put trust in God". Likewise, Participant 38 (a 25-year-old woman who reported minimal symptoms of depression) acknowledged her resilience-enabling capacity to be optimistic and attributed that to her "own internal resources, such as my spiritual beliefs and my tenacious attitude".

[Insert Figure 1 here]

Interestingly, participants who reported higher levels of depression symptoms, often used food or sleep to self-soothe. For example, Participant 28 (a 26-year-old woman who reported severe symptoms of depression) made a drawing of a woman in the rain and surrounded by food (see Figure 2). Her explanation of her drawing read:

In a world full of chaos and uncertainty, food is always there to help with distress.

Depression and sadness caused by anything can be overcome by food. This picture shows how storms come in life but as long as I have food, I can easily deal with everything.

[Insert Figure 2 here]

Similarly, Participant 27 (a 29-year-old woman who reported severe symptoms of depression) included a fast-food outlet and a kitchen in her drawing, and a sleeping figure on a bed, and

explained: “Baking makes me feel calm (my happiest food has a way of comforting my soul) ....taking naps also helps”.

In comparison, participants who reported lower levels of depression symptoms illustrated in their artwork a wider range of self-soothing activities. While these sometimes included food or sleep, there was more frequent mention of listening to or making music, meditating, or engaging in expressive activities (e.g., journaling). For instance, Participant 178 (a 22-year-old woman who reported minimal symptoms of depression) drew a variety of resources (see Figure 3) and wrote: “During lockdown I spent most of my time finding ways to relieve stress. I meditate ... I listen to gospel and any good music that helps me to relax and concentrate when doing work. Food also helps”.

[Insert Figure 3 here]

### **Commonality 2: Enabling opportunities, accessible services and mention of physical ecological resources are absent to rare**

In their explanations of the PFPs that enabled resilience, young people who reported higher (i.e., moderate/severe) levels of depression symptoms rarely if ever mentioned enabling opportunities (e.g., for formal/informal employment or education/training). Likewise, except for a single reference to an accessible health clinic and another to a grandmother sharing her social grant (government support), young people who reported higher levels of depression symptoms made no reference to accessible services. In comparison, there were more frequent references to enabling opportunities and accessible services from young people who reported lower (i.e., minimal/mild) levels of depression. For example, Participant 212 (a 26-year-old man who reported minimal symptoms of depression) alluded to the importance of education opportunities when he explained his drawing (see Figure 4). He wrote: “Now I’m a graduate and it changed my life ... there are no short cuts in

life. I had to go to school to make sure I become the man I wanna be.” Similarly, Participant 141 (a 24-year-old woman who reported mild symptoms of depression) attributed her resilience to opportunities for education and employment. She wrote:

Last year I was really struggling because of COVID-19; I couldn't find a job as a new graduate. It affected me a lot. I used to plait [hair] for a living while I was also looking for a job. Early this year I managed to overcome the situation: I got an internship and things are better than before

[Insert Figure 4 here]

Again, in their explanations of what enabled resilience, young people who reported higher (i.e., moderate/severe) levels of depression symptoms made almost no reference to resources in their physical ecology (i.e., transport systems, a safe built/outdoor space, a private space to recharge or recoup, or enabling outdoor space). The exceptions included Participant 176's (a 28-year-old woman who reported moderate symptoms of depression) reference to spending time “in the field to meditate” and drawing strength from the example of trees that “even if things go South, they grow back”. Similarly, Participant 126 (a 24-year-old woman who reported moderate symptoms of depression) reported that “fresh air and green nature helps me through hard times”. Participant 143 (25-year-old man who reported severe symptoms of depression) valued space that afforded him privacy (see Figure 5): “Being in a dark place helps me cope ... I love being in the dark because I get to cry, scream, punch the wall ... and nobody sees me”.

[Insert Figure 5 here]

In contrast, participants who reported lower (i.e., mild/minimal) levels of depression made more consistent reference to physical ecology resources, especially outdoor spaces,

though the frequency of these reference was still much less than those to personal or relational resources. Of particular interest to this study and its multisystemic orientation towards resilience, the outdoors sometimes represented more than a space to relax; it was also a source of food or livelihood. For instance, Participant 218 (28-year-old man who reported minimal symptoms of depression) drew a garden and wrote:

Doing the garden helps me forget about many things that stress me. It reduces the stress of not having work because I am able to use the garden to feed my family. I sell the vegetables to make a living and we also get food from the garden.

Similarly, Participant 371 (a 27-year-old man who reported minimal symptoms of depression) drew someone fishing and explained:

Going to spend time out there in the streams ... relieves a lot of stress since fishing helps me to put food on the table for my family. Some days I come back with a lot and sell them to my neighbours and am able to buy for my family's other needs

### **Divergence 1: Active or creative downtime**

Young people who reported minimal levels of depression often reported that their resilience was associated with keeping busy. Typically, this involved some form of exercise (e.g., playing a team sport; cleaning their house; or swimming/jogging/dancing alone) that provide an opportunity to destress or experience positive emotions, or a creative activity that took their mind off their problems (e.g., cooking special meals; learning about other cultures; doing arts-based activities; or playing games). For instance, Participant 151 (21-year-old man who reported minimal symptoms of depression) drew a person jogging and wrote:

“Exercising keeps me going. It restores my soul. Taking a jog in the morning – it’s just me and my thoughts and I find myself and it makes me happy”. Similarly, Participant 376 (28-year-old man who reported minimal symptoms of depression) drew gym equipment and

wrote, “The gym is where I release my anger ... it is my therapy.” Participant 265 (23-year-old woman who reported minimal symptoms of depression) drew a kitchen and wrote,

Personally, I prefer cooking/making delicious meals when I am facing a difficult time, especially if it something that I cannot control or change. Being in the kitchen with my nice apron and using my favourite pots to make delicious meals or smoothies really keeps me going.

In comparison, young people who reported higher levels of depression typically made little mention of active or creative downtime. An exception was Participant 27 (a 29-year-old woman who reported severe symptoms of depression) who reported “taking a walk ... with my mask on ... and seeing other people with their masks on makes me proud of my community”. Another exception was Participant 97 (a 25-year-old man who reported severe depression symptoms). He drew someone playing soccer (see Figure 6); his explanation associated hope and feeling optimistic about solving problems with being physically active. He wrote:

Soccer has helped me through the most difficult days of my life ... I have never seen soccer as something I can do full time, but as a coping mechanism ... I don't like talking much about my problems. It gives me hope – every time I am able to score a goal then that means I am able to get over the problems that I am facing.

[Insert Figure 6 here]

## **Divergence 2: Relational resource abundance**

Young people who reported higher (i.e., moderate/severe) depression symptoms reported an attenuated range of relational resources and/or made vague reference to “others” without indicating what their connection to these individuals was. Specifically, the only



relational resource mentioned by young people who reported severe depression symptoms was family and even then, the references were broadly about spending time with family or about participants' children. For instance, Participant 27 (a 29-year-old woman) mentioned, "Once a month we go buy takeaways and enjoy the food at home as a family. This day we kind of bond more than other days because we will be sitting together". Participant 175 (a 25-year-old woman) drew a child, labelled it "my sunshine", and wrote, '

The only thing that keeps me going is my son. There are still a lot of challenges and obstacles that I go through. Whenever I think of giving up, I think about him. He's the one that drives me and encourages me to become a better version of myself.

Similarly, young people who reported moderate depression symptoms made more reference to family members than to friends. When there was mention of friends, this typically included appreciation for their advice and/or sharing of material resources.

In contrast, participants who reported lower (i.e., mild/minimal) levels of depression reported a wider range of relational supports (see Figure 7 drawn by Participant 257, a 20-year-old man who reported minimal symptoms of depression). While family members were most prominent, there was also reference to intimate partners, friends, and a supportive community (proximal and distal). There was specific mention of emotional support, trust, and a sense of belonging too (see Figure 8 drawn by Participant 51, a 21-year-old woman who reported minimal depression symptoms). For example, Participant 100 (a 26-year-old woman who reported mild depression symptoms) drew a row of people and explained this as follows:

Being with my family and getting their love and support has been keeping me going because during hard times they are the only thing I am certain I can rely on. My daughter makes me strong, whilst my brother and boyfriend are always supportive.

My grandmother's teaching and how she raised my mom and us grandchildren has kept me strong and going. So, I am grateful for all of them.

[Insert Figure 7 & 8 here]

Interestingly, there was also explicit mention of giving or reciprocating support. For instance, Participant 90 (a 21-year-old woman who reported mild depression symptoms) drew a cell phone and heart and wrote, "Being connected to other people and feeling supported was one of the strongest forms of stress relief. Taking time to share my feelings and to listen and support others has kept me going". There was also often explicit mention of sharing active or creative downtime with family, friends, or community members. For example, Participant 380 (a 24-year-old man who reported minimal depression symptoms) drew soccer paraphernalia and wrote, "I selfheal when I play soccer because I interact with other boys and we share advices with our coach so we can be fit and strong in mind and body".

### **Discussion**

The current study explored the similarities and differences in the PFPs self-reported by SA youth who experienced high levels of risk exposure but different levels of symptoms of depression. While those reporting more symptoms of depression were in the minority (i.e., 21 participants; 9% of the sample with high-risk exposure), this fit with pre-existing SA studies that used the BDI to measure depression in young adult samples. For example, analysis of archival (n=2593) and original (n=499) BDIs completed by young people at SA universities (2016-2019) showed that the majority reported lower (minimal/mild) symptoms of depression (Rousseau et al., 2021). The low incidence of elevated symptoms of depression reported by participants in the high-risk exposure group also aligned well with the understanding (albeit counterintuitive) that adaptive responses (e.g., healthy psychological functioning) are common among people exposed to significant stress (Bonanno, 2004, 2021).

Nevertheless, the rising levels of youth depression globally (Shorey et al., 2022) and in South Africa (Rousseau et al., 2021), especially during recent COVID-pandemic times (Haag et al., 2022; Mudiriza & De Lannoy, 2020), direct attention to how best to protect young people from elevated levels of depression.

In the current study, personal resilience-enabling resources were prominent in participants' accounts of resilience regardless of the level of depression symptoms they reported. Various factors could account for this emphasis, including the timing of our study (i.e., during a COVID-19-related lockdown) and related restrictions on access to social, institutional, and ecological resources. Such limited accessibility could have sharpened participant focus on their personal strengths. Alternatively, participants might have underscored their personal resources because of the disadvantaged nature of their communities which translated into resource constraints and default reliance on the self. Nevertheless, the participants' emphasis on the self as a source of resilience fit with the foregrounding of personal resources in the mental health literature (e.g., Cairns et al., 2014; Fusar-Poli et al., 2020; Tang et al., 2020), and many studies of African child and adolescent resilience (see reviews by Theron, 2020; Van Breda & Theron, 2018). As suggested by Van Breda and Theron (2018), the emphasis on personal resources could also point to these resources being more readily identifiable to young people (a possibility that also fits with the self-focus of emerging adulthood; Arnett, 2000). Still, the fact that those reporting higher levels of depression symptoms seldom reported non-personal supports raises questions about the protective value of personal resources in the absence of multisystemic resources as the risk for depression increases.

Prior studies have suggested that multiple resources, across multiple systems, heighten resilience to depression (Bartley et al., 2019; Höltinge et al., 2022). SA studies of

youth mental health during COVID-challenged times echoed this, with findings suggesting that lower depression was associated with meaningful relationships, employment, and enjoyable pastimes (Haag et al., 2022; Mudiriza & De Lannoy, 2020). Likewise, in our study a range of multisystemic resources was apparent in the responses of young people reporting lower levels of depression. Unlike their counterparts with more depression symptoms, however, they more typically included various relational supports, ecological resources such as safe spaces and green spaces (including ones that could be used to generate an income), constructive downtime activities (including exercise and enjoyable pastimes), and occasional reference to enabling opportunities and accessible services. Given that all the young people in the sample selected for this current analysis self-reported high levels of risk exposure (i.e., elevated exposure to family and community adversity) and came from communities that were disadvantaged, it is difficult to explain the highly individual focus on personal qualities to cope with stress that was shown by young people with higher levels of depression. While it is possible that higher levels of depression could have shrunk young people's worlds by numbing awareness of supports or dampening enthusiasm (and energy) for accessing/appropriating social, institutional, and ecological resources (Shorey et al., 2021), it is also possible that those reporting lower levels of depression had greater/easier access to a range of resources.

In short, the findings speak to the importance of multiple resources to the mental health of young people living in disadvantaged communities in South Africa and elsewhere. Health care and interventions that are narrowly focused on building/sustaining psychological strengths are likely to yield sub-optimal results. Supporting young people to access and appropriate relational, institutional, and ecological resources – in tandem with building/sustaining psychological strengths – will probably have greater mental health benefits (Ungar & Theron, 2020). Likewise, youth mental health benefits should accrue when

societies prioritise youth access to institutional and ecological resources (e.g., education or employment opportunities; accessible services; recreation spaces). These resources were implicated in the agency (e.g., constructive downtime) that distinguished the young people reporting negligible depression symptoms in our study. Importantly, in disadvantaged communities such as those in our study, multisystemic resources ideally need to have multipurpose protective benefits that redress the structural drivers of depression (e.g., green spaces that can be used for relaxation and income generation purposes; affordable/free public facilities that provide safe opportunities for exercise and socialisation).

Our study is not without limitations. Although we were interested in the resources that might ameliorate depression, we recruited young people from the general (not clinical) population and invited them to self-report depression symptoms. Even though we restricted inclusion to youth from disadvantaged communities (given the strong SA association between depression and socioeconomic disadvantage [Mungai & Bayat, 2019]), this could not guarantee high numbers of participants with elevated depression symptoms. The limited percentage (9%) of participants reporting high risk exposure and elevated depression symptoms could have attenuated the range of possible PFPs compared to those reported by the large sample of young people reporting minimal/mild symptoms of depression. Relatedly, as cautioned by Wiedeman and colleagues (2022), we could not link depression symptoms to COVID-related challenges as we lacked the pre-pandemic data required to accurately assess pandemic-induced mental health changes.

Our purposeful recruitment of young people living in disadvantaged communities combined with our operationalisation of risk exposure (i.e., community-related stress; family adversity) probably explains the very high levels of self-reported risk exposure. Disadvantaged neighbourhoods are characterised by distal and proximal risk factors (e.g.,

neighbourhood deprivation, overcrowding, widespread poverty, reduced collective efficacy) that potentiate experience of community-related stressors and adverse family events (Ellis & Dietz, 2017; Naicker et al., 2022). Had we operationalised risk exposure differently, the quantitative data may have been less skewed toward high-risk exposure.

We also acknowledge that snowball sampling could have biased our sample to specific social groups or networks within specific disadvantaged communities. Interestingly, in previous (pre-COVID) resilience studies that we conducted in disadvantaged South African communities, gatekeepers and youth advisors recommended snowball sampling, believing it fit well with traditional African appreciation for interrelatedness. In our experience, youth in these studies shared information about the study beyond their immediate networks (Theron, 2020; Theron et al., 2022).

In addition to using snowball sampling to manage COVID-related challenges to our study, we adapted traditional paper-based draw-and-write methods for digital use. Mail-in options were excluded given the South Africa postal service's reputation for slow and unreliable service, a state of affairs that worsened during the COVID-19 pandemic (BusinessTech Staff Writer, 2021). While this invariably limited participants to individuals who had access to technology, no participant declined to participate because they did not have personal access to a device. Further, because resilience is a dynamic process (Masten et al., 2021), the ideal would have been to invite iterative accounts of resilience (e.g., drawings at more than one point in time). The latter would have provided insight into the constancy – or lack thereof – of the reported resources over time.

Overall, though, our study provided rare insight into the PFPs associated with the mental health of African young people. In so doing, it redresses the hegemony of Western studies of what might enable positive youth development and mental health (Blum &

Boyden, 2018; Chukwuere et al., 2021). Simultaneously, it challenges deficit-saturated accounts of African young people and perpetuation of individual-focused explanations of resilience: despite high-risk exposure, most of our African sample reported minimal or mild symptoms of depression. Resilience-enabling resources, from multiple systems, were implicit in these reports. In short, investing in the mental health of African young people will mean investing in interventions that advance access to meaningful, multisystemic resources and campaigns that teach young people that mental health resilience is a shared – not individual – endeavour.

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**Table 1**

Participant demographics

<b>Demographic</b>	<b>N</b>	<b>Sub-groups</b>	<b>Frequency</b>	<b>Percentage</b>
<b>Self-identified Race</b>	293	White	2	.68
		Coloured	4	1.37
		Black	287	97.95
<b>Self-identified gender</b>	293	Female	201	68.60
		Male	91	31.10
		Other	1	.30
<b>Education</b>	113	Completing school	41	36.28
		Completing a skills development course (e.g., leadership)	31	27.44
		Tertiary student	41	36.28
<b>Employed</b>	90	Temporary/seasonal labour	13	14.44
		Part-time employed	33	36.67
		Full-time employed	29	32.22
		Self employed	14	15.56
		Internship	1	1.11
<b>Not in employment, education, or training</b>	89	Unemployed, looking for work	80	89.89
		Unemployed, NOT looking for work	7	7.00
		Unemployed looking to study	2	2.00
		Undisclosed	1	1.11

**Table 2.**

Frequency of participants' risk levels by depression grouping.

	<b>High Risk (n = 233)</b>	<b>Low Risk (n = 61)</b>
<b>Minimal/Mild Depression</b>	212	42
<b>Moderate/Severe Depression</b>	21	19

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**Table 3.**

Frequency of coded themes in the high-risk group (n = 233), by depression grouping

<b>Codes</b>	<b>Minimal Depression (n=192)</b>	<b>Mild Depression (n=20)</b>	<b>Moderate Depression (n=11)</b>	<b>Severe Depression (n=10)</b>
<b>Personal Resources</b>				
<b>Constructive cognition</b>	79	15	11	8
<b>Self-soothing activity</b>	63	3	9	4
<b>Enabling agency</b>	37	4	4	2
<b>Relational supports</b>				
<b>Enabling relationships</b>	75	8	8	2
<b>Ecological supports</b>				
<b>Access to services/formal supports</b>	3	3	1	1
<b>Enabling physical ecology</b>	14	3	2	2
<b>Enabling opportunities</b>	5	1	1	0
<b>Constructive downtime</b>	57	4	1	2